L16 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:898276 CAPLUS <<LOGINID::20080331>>
DOCUMENT NUMBER: 147:437252
TITLE: Supramolecular crystal structures of per(3,6-anhydro)-α- cyclodextrin grown from KCl or NaI solutions
AUTHOR(S): Baudin, Cecile; Camara, Magatte; Navaza, Alda
CORPORATE SOURCE: DRECAM/LSI, CEA, CEA Saclay, Gif-sur-Yvette, F-91191, Fr.
SOURCE: Journal of Molecular Structure (2007), 839(1-3), 58-63
CODEN: JMOSB4; ISSN: 0022-2860
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Crystals of per(3,6-anhydro)-α- cyclodextrin {peraxis(3,6-anhydro)cyclomaltohexaose} (I) grown in presence of KCl or NaI evidence the similar distorted conformation of macrocycle and provide the same supramol. scaffolding of cyclodextrins based on CH•••O H bonds. Infinite tubes parallel to symmetry axis 6 are filled by H2O mols. or by I atoms in I/KCl and I/NaI crystals, resp. In I/KCl crystals an inclusion complex of stoichiometry 1:2 was found. Coordination polyhedra of the dimeric K units fuse with the coordination polyhedra of one pentacoordinated chloride atom to form an infinite helix along the c direction crossing over a helical organic envelope of cyclodextrin mols. Crystallog. data are given.
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:724927 CAPLUS <<LOGINID::20080331>>
DOCUMENT NUMBER: 147:277817
TITLE: NMR spectroscopy on the complexation of 3,6-anhydro-β- cyclodextrin with 2,6-naphthalene-dicarboxylate ion
AUTHOR(S): Yoshikiyo, Keisuke; Matsui, Yoshihisa; Yamamoto, Tatsuyuki; Okabe, Yuji
CORPORATE SOURCE: Faculty of Life and Environmental Science, Shimane University, 1060 Nishikawatsu, Matsue, 690-8504, Japan
SOURCE: Bulletin of the Chemical Society of Japan (2007), 80(6), 1124-1128
CODEN: BCSJA8; ISSN: 0009-2673
PUBLISHER: Chemical Society of Japan
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The 2,6-naphthalene-dicarboxylate ion (2,6-NDC) was included into the interior cavity of 3A,6A-anhydro-β- cyclodextrin (I) in D2O containing 0.1 mol dm-3 Na2CO3 and caused a shift in the 1H NMR signals due to the C3- and C5-H's of I to different directions, depending on the positions of glucose units (anisotropic ring-current effect). The decrease in entropy accompanied by the complexation was much larger than that for the complexation of native β- cyclodextrin with 2,6-NDC. These results indicate that the mol. rotation of 2,6-NDC is retarded within the deformed cavity of I.
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:10691 CAPLUS <<LOGINID::20080331>>
DOCUMENT NUMBER: 142:280362
TITLE: Ionic complexation properties of per(3,6-anhydro)cyclodextrin derivatives towards lanthanides
AUTHOR(S): Baudin, Cecile; Tardy, Fabienne; Dalbiez, Jean-Pierre; Jankowski, Christophe; Fajolles, Christophe; Leclair, Gaetan; Anekraz, Badis; Perly, Bruno; Mauclaire, Laurent
CORPORATE SOURCE: CEA, DRECAM/SCM, CEA Saclay, Gif-sur-Yvette, F-91191, Fr.
SOURCE: Carbohydrate Research (2005), 340(1), 131-138
CODEN: CRBRAT; ISSN: 0008-6215
PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 142:280362
AB Using per(3,6-anhydro)cyclodextrin derivs. [per(3,6-anhydro]CD], it was possible to produce new lanthanide, such as praseodymium, chelates by careful choice of the size and functional groups. Heptakis(3,6-anhydro-2-O-methyl)cyclomaltoheptaose fulfills the best criteria for complexation of praseodymium ions. NMR was used to derive the association consts. and the stoichiometries of these new complexes. Finally, a three-dimensional structure of these complexes consistent with the NMR data is proposed, to ascertain the position of praseodymium in the cavity of the per(3,6-anhydro]CD. For the present purposes, heptakis(2-O-acetyl-3,6-anhydro)cyclomaltoheptaose, octakis(2-O-acetyl-3,6-anhydro)cyclomaltooctaose, heptakis(3,6-anhydro-2-O-methyl)cyclomaltoheptaose and octakis(3,6-anhydro -2-O-methyl)cyclomaltooctaose have been synthesized and purified.
REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:172422 CAPLUS <<LOGINID::20080331>>
DOCUMENT NUMBER: 128:283005
TITLE: Primary hydroxy-modified cyclomaltoheptaose derivatives with two kinds of substituents. Preparation of 6I-(benzyloxycarbonylamino)-, 6I-(tert-butoxycarbonylamino)- and 6I-azido-6I-deoxy-6II,6III,6IV, 6V,6VI,6VII-hexa-O-tosylcyclomaltoheptaose and their conversion to the hexakis-(3,6-anhydro) derivatives
AUTHOR(S): Yamamura, Hatsuo; Yosuiya, Tadahiro; Usami, Satoshi; Iwasa, Akihito; Ono, Shoji; Tanabe, Yoshihisa; Iida, Daisuke; Katsuhara, Takao; Kano, Kazuaki; Uchida, Tetsuo; Araki, Shuki; Kawai, Masao
CORPORATE SOURCE: Department of Applied Chemistry, Nagoya Institute of Technology, Nagoya, 466, Japan
SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1998), (7), 1299-1304
CODEN: JCPRB4; ISSN: 0300-922X
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Three cyclomaltoheptaoses (1, 2 and 3) which possess a benzyloxycarbonylamino group, a tert-butoxycarbonylamino group or an azido group, and six tosyloxy groups, on their C-6 atoms have been prepared These can be versatile intermediates for the synthesis of derivs. possessing an amino group as well as other functional groups. As an example of their derivatization, their conversion to compds. containing 3,6-anhydroglucoses, which possess cation-binding abilities, is also reported.
REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:733917 CAPLUS <<LOGINID::20080331>>
DOCUMENT NUMBER: 126:25956
TITLE: Dipotassium Complex of Per-3,6-anhydro -β- cyclodextrin
AUTHOR(S): Ashton, Peter R.; Gattuso, Giuseppe; Koeniger, Rainer; Stoddart, J. Fraser; Williams, David J.
CORPORATE SOURCE: School of Chemistry, University of Birmingham, Edgbaston/ Birmingham, B15 2TT, UK
SOURCE: Journal of Organic Chemistry (1996), 61(26), 9553-9555
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The complete 3,6-anhydration of cyclodextrins induces severe changes into the conformations of the D-glucopyranose residues, imposing a 1C4 chair conformation in contrast with the usual 4C1 chair. Mass spectrometric evidence is presented, which shows that per-3,6-anhydro-β- cyclodextrin complexes K ions selectively

from a melee of alkali metal cations. X-ray crystallog. anal. reveals that, in the solid state, the highly distorted chemical-modified cyclodextrin adopts a severely puckered conformation, which facilitates the binding of two K ions with the cavity of per-3,6-anhydro-β- cyclodextrin. These cations, which are 10- and 11-coordinate, bind to O atoms, other than the anhydro ring O atoms, in six (two only partially) of the seven 3,6-anhydro -D-glucopyranose residues. Included H2O mols. and/or HO- ions serve to satisfy the remaining coordination sites. Study of the crystal packing reveals that the 2:1 complexes assemble to form a trimeric C3 sym. clover leaf aggregate.

L16 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1995:909459 CAPLUS <<LOGINID::20080331>>
DOCUMENT NUMBER: 123:290262
TITLE: Manufacture method and use of mono-3,6-anhydro -cyclodextrins for solubilizing hydrophobic compound and monitoring the purity of enantiomer
INVENTOR(S): Djedaini-Pilard, Florence; Perly, Bruno
PATENT ASSIGNEE(S): Commissariat a l'Energie Atomique, Fr.
SOURCE: PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9517433	A1	19950629	WO 1994-FR1502	19941221
W: AU, HU, JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
FR 2714066	A1	19950623	FR 1993-15470	19931222
FR 2714066	B1	19960112		
AU 9513199	A	19950710	AU 1995-13199	19941221
AU 687966	B2	19980305		
EP 736045	A1	19961009	EP 1995-904578	19941221
EP 736045	B1	19990317		
R: CH, DE, GB, IT, LI, NL, SE				
HU 74940	A2	19970328	HU 1996-1735	19941221
HU 219880	B	20010828		
JP 09506921	T	19970708	JP 1995-517234	19941221
JP 3604390	B2	20041222		
US 5760016	A	19980602	US 1996-652467	19961209
PRIORITY APPLN. INFO.:			FR 1993-15470 A	19931222
			WO 1994-FR1502 W	19941221

OTHER SOURCE(S): MARPAT 123:290262
AB The title compds. having good solubility in water and ring size corresponding to α-, β- and γ- cyclodextrin are useful for formation of inclusion complexes with hydrophobic compds. for cosmetic formulation, pharmaceuticals, etc. and are prepared by the reaction of a 6-monotosylated cyclodextrin with an aqueous LiOH solution followed by regular working up steps.

L16 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1994:192120 CAPLUS <<LOGINID::20080331>>
DOCUMENT NUMBER: 120:192120
TITLE: Conformational study of 3A,6A-anhydro -cyclomaltohexaose in solution
AUTHOR(S): Durier, Viviane; Mazeau, Karim; Gey, Claude; Driguez, Hugues; Taravel, Francois R.
CORPORATE SOURCE: Cent. Rech. Macromol. Veg., CNRS, Grenoble, 38041, Fr.
SOURCE: New Journal of Chemistry (1993), 17(12), 843-9
CODEN: NJCHE5; ISSN: 1144-0546
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The conformational behavior of a modified cyclodextrin, 3A,6A-anhydrocyclomaltohexaose in solution, and of two model disaccharides (Me 4-O-(α-D-glucopyranosyl)-3,6- anhydro -β-D-glucopyranoside, and Me 4-O-(3,6- anhydro -α-D-glucopyranosyl)-β-D-glucopyranoside) has been characterized through combined NMR and mol. modeling studies. In

parallel, the conformational anal. of the disaccharides and of the modified cyclodextrin was achieved with the CHARMM program. Both disaccharides have limited stability (Φ,Ψ) domains because of steric repulsions, lack of flexibility of the 3,6-anhydro unit, and the existence of several inter-residue hydrogen bonds. The agreement between exptl. and calculated vicinal coupling consts. is good. Generated conformations for the modified cyclodextrin, have been classified into three groups: regular, intermediate and distorted. For the latter, a glucose unit adjacent to the 3,6-anhydro residue is tilted towards the inside of the hydrophobic cavity. The NMR data are in agreement with the data calculated for the intermediate form which could correspond to the preferred conformation in solution

L16 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1992:21341 CAPLUS <<LOGINID::20080331>>
DOCUMENT NUMBER: 116:21341
TITLE: Synthesis and characterization of per-3,6-anhydro cyclodextrins
AUTHOR(S): Ellwood, P.; Stoddart, J. F.
CORPORATE SOURCE: Dep. Chem., Univ. Sheffield, Sheffield, S3 7HF, UK
SOURCE: Minutes Int. Symp. Cyclodextrins, 5th (1990), 86-9. Editor(s): Duchene, Dominique. Ed. Sante: Paris, Fr.
CODEN: 57LSAJ
DOCUMENT TYPE: Conference
LANGUAGE: English
AB A symposium on the synthesis and characterization of a potentially new class of cyclodextrin (CD)-derived mol. receptors, the per-3,6-anhydro CDs. The β-CD derivative was prepared by treatment of per-6-O-tosyl-β-CD with aqueous NaOH. The per-3,6-anhydride of α-CD, however, was prepared by the action of aqueous NaOH on per-6-O-tosyl-2,3-benzoyl-α-CD as the key intermediate.

L16 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1991:82320 CAPLUS <<LOGINID::20080331>>
DOCUMENT NUMBER: 114:82320
TITLE: Synthesis and characterization of per(3,6-anhydro)cyclodextrins
AUTHOR(S): Ashton, Peter R.; Ellwood, Paul; Staton, Ian; Stoddart, J. Fraser
CORPORATE SOURCE: Dep. Chem., Univ. Sheffield, Sheffield, S3 7HF, UK
SOURCE: Angewandte Chemie (1991), 103(1), 96-7 (See also Angew. Chem., Int. Ed. Engl., 1991, 30(1), 80-1)
CODEN: ANCEAD; ISSN: 0044-8249
DOCUMENT TYPE: Journal
LANGUAGE: German
AB The title compds. were prepared via treatment of 6-O-tosylcyclodextrins with aqueous NaOH or their perbenzoates with Et3N in aqueous MeOH. The crystal structure of anhydro-β- cyclodextrin was determined